

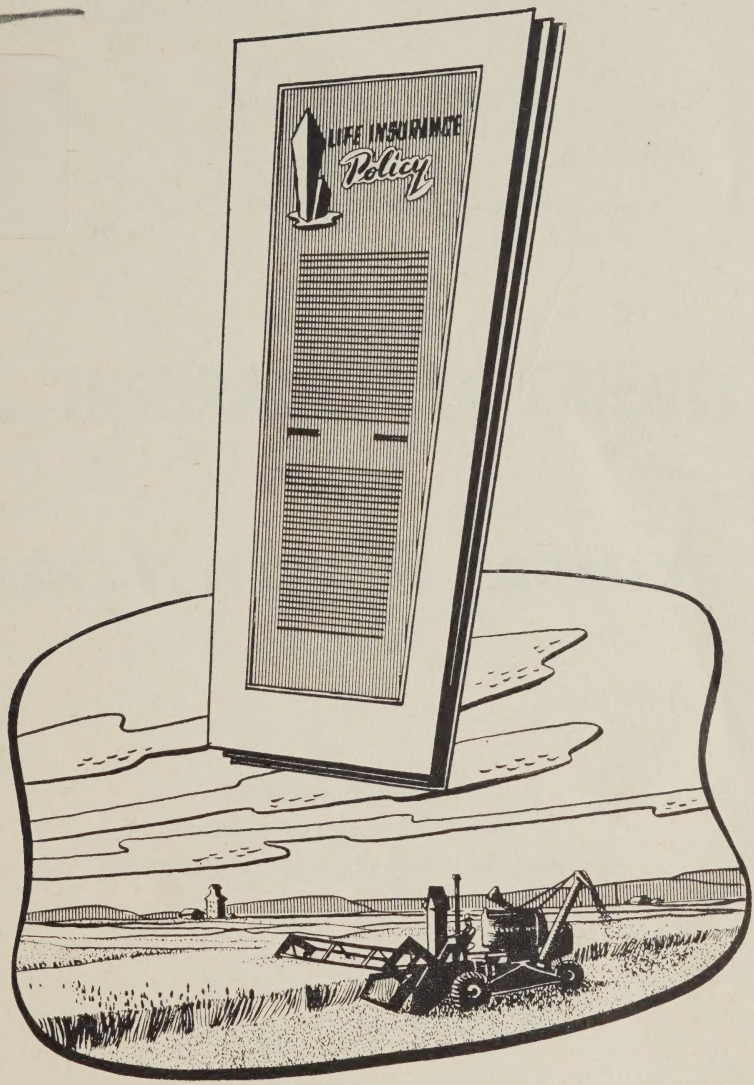
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LIFE INSURANCE EXPERIENCE

OF SASKATCHEWAN FARMERS

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LIFE INSURANCE EXPERIENCE


of

SASKATCHEWAN FARMERS

BY
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LIFE INSURANCE EXPERIENCE OF SASKATCHEWAN FARMERS

Introduction

GORDON HAASE¹

For many persons, the purchase of life insurance represents the most important business transaction they make in their lifetimes. The features of modern life insurance serve a wide variety of individual purposes. It is most generally held by family heads as a means of providing an estate at their deaths for the future security of their dependents. In addition, the savings features of certain types of life insurance policies provide a convenient method of accumulating savings. This feature is attractive to a large number of people who, for one reason or another, do not wish to make their own investments directly. Finally, there is the somewhat more limited use of life insurance being carried to provide a contingency fund for the liquidation of a debt in the event of the untimely death of the insured. Many persons contract debts which they would ordinarily be able to repay within a given period, but whose death in the meantime would cause inconvenience and possible loss to their dependents. Life insurance protection may be carried over the term of the debt to cover this eventuality.

The amount of life insurance that should be carried cannot be generalized. The amount is ordinarily determined for the individual by two main considerations. In the first place there is the need for insurance protection based upon the particular family situation and their needs for income in the event of the death of the breadwinner. At the same time, the amount of insurance that can be safely contracted is directly determined by the income situation of the purchaser.

With regard to family situation, the need for insurance relates directly to the number of dependents for whose security it is desired to provide. It is evident, however, that this need is not constant. For example, children must ordinarily be provided for until they reach a self-sustaining age. More insurance should therefore be carried when children are young than would be required to provide the same benefits to older dependents. The same considerations, of course, apply to the widow. In addition to differences in need of this general nature, there are additional differences in the degree of comforts which the insured wishes to provide, and again these can be determined only in the individual situation. In all of these cases, the use made of insurance in the creation of a death estate will be conditioned by the holdings of other types of assets by the insured, which will also be available to meet the subsequent needs of his dependents.

Quite apart from the circumstances determining the need for life insurance, it is probable that the amount carried in any situation is most directly determined by the ability of the insured to pay for insurance. It appears desirable that life insurance purchases should be closely guided by this consideration. The payment of life insurance premiums must be made regularly and promptly if the policy is to be retained in force. In periods of strain upon the family budget, life insurance may easily be regarded as nonessential and permitted to lapse. Premium payments should, therefore, be kept at a figure that the family budget will ordinarily accommodate. It is more desirable, from the dependent's point of view, that a moderate program of protection be retained at all times, rather than risk a situation in which a greater protection would have to be given up.

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Life Insurance as an Aspect of the Farm Business

Persons owning their own businesses ordinarily have a reduced requirement for life insurance. The inheritors of a going concern have a source of income that even without the former operator will provide for at least some of their needs. The same situation exists for the inheritors of any type of asset that may be readily liquidated. A person who is accumulating an estate in terms of real and personal property, therefore has less need for life insurance than one without such an estate, each making the same provision for his dependents.

These considerations apply particularly to the needs of farm operators as a general group for insurance. With reference to each of the main applications of the modern life insurance policy, death benefits, savings and contingency, it appears that these have a reduced appropriateness for farmers in each case.

1. In the first place, farmers build up their estates in terms of land, improvements and machinery. The value of these assets, or their income producing capacity as a going concern, is available to dependents upon the death of the operator. The farmer might purchase life insurance then to provide a supplementary death estate for his dependents and thus bridge a possible gap between his present assets and the better provision he feels he can or ought to make.
2. Any savings which farmers make are generally put back into the farm business. The productivity of saving in this use, applied in the form of improvements and machinery, is ordinarily higher than the interest earned on savings in insurance. In addition, most farms are not entirely free of debt. It would be costly for the farm operator to accumulate savings in insurance at say 3 per cent, and at the same time have borrowings costing say 6 per cent.
3. The contingency feature of insurance, while valid, is not popular. It appears to be even somewhat less applicable to farmers where land purchases, for example, are of such long term as to make this type of protection costly.

Within the over-all situation among farmers of a diminished importance of life insurance relative to other groups, there are important differences between individuals or groups of farmers in the amounts of life insurance they should carry. These differences may be associated in general, firstly, with differences in the farm business situation of the operator, and secondly, with differences in the personal characteristics of the operator and his family.

1. Business factors within the farm influence both the need of the operator for insurance and his ability to pay for it. The tenure situation provides an example of differences in need. Tenants as a group have not accumulated an estate in terms of land, and therefore have neither the asset nor its earning power to bequeath to their dependents. Under these circumstances, this group might find the holding of life insurance a desirable means both of providing a death estate and of accumulating savings. For land owners, on the other hand, both the protection and savings features of life insurance are less appropriate.

Differences in the ability to pay for insurance may be imputed in part to differences in the size of the farm unit, which has always been a major determinant of farm progress and success. The operators of large farms would, of course, be better able to buy insurance than the operators of small units. At the same time, it may be noted that larger operators, possessing in general larger estates, need the insurance less than the small operators. This situation points up a fundamental incompatibility of need and ability to pay as criteria of the amount of insurance a person should carry. Those whose need for insurance is greatest are those who can least afford to buy it.

2. Personal characteristics of the farm operator and his family relate more specifically to the need for insurance than to ability to purchase it. Differences in need as between individual farm operators reflect the requirements of families of different sizes and ages. There are, in addition, other and more subtle differences associated with the education, nationality and religion of the operator, probably as these factors relate to an awareness of a need for life insurance in their own particular situation.

Purpose of Study

The purposes of this study may be defined relative to the foregoing general considerations. With respect to the various features of the modern life insurance policy, the appropriateness of insurance may be determined for any particular

business and personal situation. For farm operators as a group, these relevant business and personal factors may be readily categorized, and the life insurance practices suited to each situation would then indicate the over-all applicability of insurance to farmers as a group. The data of this study provide an estimate of the life insurance practices of farmers in all of these situations.

Specifically, the purposes of this study may be summarized with respect to two main considerations.

1. Firstly, to indicate the general insurance practices of farmers as a group. Of course, only limited generalizations may be made regarding the practices of the entire group, but these are none the less useful in establishing a norm from which deviations for particular groups may be identified and correlated.
2. Secondly, the sample of farm operators can be divided into sub-groups according to the farm business factors and personal characteristics which relate to life insurance. The life insurance experience of each of these sub-groups will be examined and then compared with what appears to be a desirable use of insurance relative to the particular situation.

Method of Study

This study relates to the life insurance experience of Saskatchewan farmers. More specifically, the data consist of the insurance, business and personal information for a relatively small group of farmers, comprising a small proportion of all the farmers in the province. Conclusions drawn from an analysis of these data then apply directly only to the group represented in the sample. Given certain conditions of sampling procedure, however, generalizations drawn from an analysis of the sample may be extended into estimates of the nature of the population from which the sample was drawn.

This inductive approach is essentially the method of the present study. The group of farmers for whom relevant information is available are regarded as a sample which is representative of all farmers in the province. The insurance practices of this group are then considered as providing estimates applicable to the larger group as a whole. Certain characteristics of the sample indicate a general validity of this extension.

Source of Data

Since 1935 the Economics Division, in collaboration with the Farm Management Department of the University of Saskatchewan has conducted business surveys among the farmers of Saskatchewan. For about five years previous to that date the Farm Management Department had conducted surveys independently. These surveys were based upon a detailed record of the farm business obtained directly from the farmer by a trained enumerator. The information obtained includes a complete operating statement for the farm business for one year, an inventory statement and other factors relating to the business situation and the personal background of the operator, including his life insurance experience. These original data, together with office calculations based upon them, comprise the analytical material upon which this study is based.

Notes on Sample

Before a sample can be held to be representative of the population from which it is drawn, it must fulfill two major requirements. In the first place, representativeness is based upon random selection of observations from the population. Secondly, the reliability of a sample is directly related to its size.

The farm business surveys, which provide the data for this study, have been conducted in some nineteen general areas distributed throughout the province. These areas were not selected primarily to represent the province as a whole.

Nevertheless, the pattern of areas as the surveys proceeded now includes most of the natural and population differences that are reflected in farm organization and management in this province.

Most of these differences are related to geographical factors, and a geographical stratification of the sample takes them into account. For this particular sample, however, an additional variable is introduced. This variable relates to the period of time over which the surveys were conducted. Generally the survey for a particular area constituted a year's work. The data for each survey is then particular not only as to area but also as to time, and differences between areas as shown for the sample include elements relating to natural and personal factors, but also elements which reflect changed economic conditions for different time periods. The following data indicates the geographical distribution of the several survey areas and the year in which each survey was made.

TABLE I. — SUMMARY OF FARM BUSINESS SURVEYS, 1931-46.

Survey No.		Year of Survey	Total No. of Records	Total No. with Insurance Information	Per Cent
† Brown Soil Zone					
1	Economic Survey.....	1935	836	524	62.9
2	R. M. Pittville No. 169.....	1939	116	68	58.6
3	Eye-brow-Lacadena.....	1940	434	189	43.5
4	Govenlock-Eastend-Maple Creek.....	1946	317	119	37.2
			1703	900	52.9
Dk. Brown Soil Zone					
5	R. M. Rosemount No. 378 and Reford No. 379.....	1932	243	123	50.6
6	R. M. Brokenshell No. 68, Wellington No. 97 and Scott No. 98.....	1932	248	125	50.1
7	Balgonie-Qu'Appelle.....	1940	84	36	42.9
8	Wilcox.....	1940	106	76	71.7
9	Weyburn-Estevan.....	1941	268	156	58.2
10	Blucher-Colonsay.....	1941	146	96	65.8
11	Cory-Asquith-Langham.....	1943	492	229	46.5
			1587	841	52.9
Black Soil Zone					
12	Indian Head-Balcarres, Grenfell-Wolseley, Neudorf-Lemberg.....	1933	414	215	51.9
13	Humboldt.....	1934	459	190	41.4
14	Saltcoats-Churchbridge.....	1939	200	95	47.5
15	Lashburn-Paynton.....	1939	133	80	60.2
16	Melfort.....	1940	103	60	58.3
			1309	640	48.9
Grey Soil Zone					
17	Pleasantdale.....	1940	71	10	14.1
18	Albertville-Garrick.....	1941	304	86	28.3
19	Representative Northern Pioneer Areas.....	1942	687	150	21.8
			1062	246	21.8
	All Survey Areas		5661	2627	46.4

The above table also indicates the number of farmers from whom records were obtained in each of the survey areas. Relative to the total number of farm operators in the province, the 5,661 farmers represented in the sample amount to somewhat more than 4.5 per cent. Of these, about 46.4 per cent, or 2,627 farm operators, reported having life insurance at one time or another. This latter group constitutes the sample upon which this study of life insurance is based. As indicated above, the reliability of a sample is directly related to its size. Ordinarily, a sample containing as many as 2,500 observations is fairly reliable although, of course, this does not preclude the possibility of obtaining a misleading estimate of the population as a whole.

Possible difficulties in interpretation of the results of this sample do not relate specifically to its representativeness or its reliability. Possible difficulties might arise, however, from the simultaneous variations in geography and time period as between survey areas. For this reason, therefore, comparisons between areas regarding insurance practices, as well as for all other factors, must be avoided. The same limitation applies, of course, to possible comparisons as between time periods. At the same time, the relationships between insurance practices, and the farm business factors and personal characteristics of the operator, should be constant or only randomly variable for time and place. The determination of these relationships, which is the main purpose of the study, should therefore not be influenced by the time period over which the data were collected.

GENERAL ASPECTS OF THE LIFE INSURANCE PRACTICES OF SASKATCHEWAN FARMERS

During the period 1931 to 1946, the Farm Business surveys conducted in Saskatchewan accumulated some 5,661 farm business records with information appropriate to a survey of the insurance practices of farm operators. In that period, the number of farms in the province fluctuated around a probable 125,000 to 130,000 farms. On that basis, the records obtained represent about a 4.5 per cent sample of the farms of the province. Insofar as the previously noted requirements of representativeness are met, the sample provides a basis for certain generalizations regarding the insurance practices of the province's farm population as a whole.

Prevalence of Life Insurance

Of 5,661 farm business records having information appropriate to this study, 2,572 represented farm operators having life insurance experience. An additional 55 records indicated purchases of life insurance by other members of the farm family, although the operator himself had never carried any. Thus, of the farm operators represented in the sample, the proportion with life insurance experience is approximately 45 per cent.

Individual operators had contracted from one to seven life insurance policies. The 2,572 operators in the sample contracted a total of 3,686 policies, or an average of about 1.4 policies per operator having insurance. The distribution of operators by the number of policies contracted is given in the following table.

TABLE II. — NUMBER OF POLICIES CONTRACTED PER OPERATOR

	No. of Policies							Total
	1	2	3	4	5	6	7	
No. of Operators.....	1,773	562	182	38	12	4	1	2,572
No. of Policies.....	1,773	1,124	546	152	60	24	7	3,686

It is to be expected that not all of the policies contracted were continued in force. Of the 3,686 policies contracted, a total of 1,344 had been discontinued at survey date. This discontinuance amounts to about 37 per cent of the policies issued, or about 0.5 policies per operator having insurance. The following is a distribution of operators by number of policies discontinued.

TABLE III. — NUMBER OF POLICIES DISCONTINUED PER OPERATOR

	No. of Policies					
	1	2	3	4	5	Total
No. of Operators.....	831	184	40	5	1	1,061
No. of Policies.....	831	368	120	20	5	1,344

The 2,342 policies remaining in force represent about 63 per cent of the policies issued, or an average of 0.9 policies per operator out of an average of 1.4 policies contracted. Of the sample of 2,572 operators with insurance experience, 1,511 operators, or about 59 per cent, still had all of their insurance in force at survey date.

Amounts and Status of Insurance

There is considerable variability in the amounts of insurance held by individuals and in the sizes of individual policies. The amounts held in individual cases may be associated with factors which in turn may or may not be significant for the whole group. For the whole group, however, there is a definite pattern of policy size. The first policies of the operators in this study ranged in face value from a few hundred to over twenty thousand dollars. Policies in the range from \$1,000–\$1,999, being mostly thousand dollar policies and some fifteen hundred dollar policies, were the most popular size, comprising about 40 per cent of the first policies contracted by this group. The following table indicates the relative popularity of different-sized policies.

TABLE IV. — DISTRIBUTION OF FIRST POLICIES ACCORDING TO SIZE OF POLICY

Face Value of Policy	Number of Policies
\$	
Under 1,000.....	126
1,000– 1,999.....	1,124
2,000– 2,999.....	775
3,000– 3,999.....	168
4,000– 4,999.....	31
5,000– 5,999.....	224
6,000– 6,999.....	11
7,000– 7,999.....	5
8,000– 8,999.....	—
9,000– 9,999.....	3
10,000–19,999.....	32
20,000–29,999.....	3
No Information.....	70
TOTAL.....	2,572

For the group as a whole, the average amount of insurance contracted per operator, as well as the average size of policy, can be determined from the data. These averages, together with further computations showing the status of insurance at the date of survey, are shown in the following table.

TABLE V. — STATUS OF LIFE INSURANCE POLICIES CONTRACTED BY FARMERS

	Contract- ed	Discon- tinued	In Force	Paid Up	Indebted- ness	Cash Value
Total Amount.....	\$7,427,100	\$3,061,400	\$4,365,700	\$449,100	\$180,800	\$1,029,900
Number of Operators.....	2,572	1,061	1,683	1,683	1,683	1,683
Average Amount Per Operator.....	\$2,884	\$2,875	\$2,594	\$267	\$107	\$612
Number of Policies.....	3,686	1,344	2,342	2,342	2,342	2,342
Average Amount Per Policy.....	\$2,015	\$2,275	\$1,863	\$192	\$77	\$440

In terms of the experience of the whole group, the 2,572 operators comprising the sample had contracted an average of \$2,884 of life insurance each. They had taken this amount in an average of 1.4 policies with a face value of about \$2,015 per policy. The total value of the insurance contracted was close to seven and one-half million dollars.

Of the total amount contracted, a little over three million dollars worth was dropped by 1,061 operators. This discontinuance amounts to an average lapse of \$2,875 per operator, or an average of \$2,275 on each of the 1,344 policies involved.

The 1,061 operators who had allowed insurance to lapse left 1,511 operators with all of their insurance in force. Of those allowing insurance to lapse, however, 172 operators had other insurance still in force, making a total of 1,683 operators, or 61.5 per cent of the original group, with insurance in force at survey date.

The 1,683 operators with insurance in force held a total of about four and one-third million dollars worth, or an average of about \$2,594 per operator. This total was held in 2,342 policies of an average of \$1,863 each. In terms of face values, about 59 per cent of the insurance purchased was still in force at survey date. In relation to the figure of 63 per cent of policies still in force, it is evident that the majority of the policies discontinued were of larger than average amount.

About 10 per cent of the life insurance in force was paid up at the date of survey. That is, policies representing about \$450,000 had been paid for in full and would remain in force without further premium payments until the policy became payable at the death of the insured.

The cash surrender value represents the cash equity of the insured in his insurance policy. This is a personal asset which may be realized by surrendering the policy. The farm operators in this study, who still had insurance in force, had an average cash equity of \$612 in their insurance policies. Against this, these operators had an average indebtedness, such as policy loans and back payments of premiums, amounting to \$107 per operator against their insurance. This leaves an average net cash equity of \$505 per operator. In terms of individual

policies, the total cash value amounted to \$440 per policy, less an average indebtedness of \$77, leaving a net cash value of \$363 per policy. In many cases, the cash value of insurance represented a substantial proportion of the total net worth of the operator. For the sample as a whole, the average net worth of all the farm operators was \$7,300. Taking this figure as applying to those with insurance in force with an average net cash value of \$505, the cash value of insurance represented about 7 per cent of their net worth.

The above statistics permit some general estimates of the amounts and status of life insurance held by farmers in Saskatchewan as a whole in the period 1931-46. On the basis of a 4.5 per cent sample, these data indicate a total of over 163 million dollars of life insurance having been contracted by farmers as at that period. Of this amount, some 96 million dollars was still in force. Something under 10 million dollars of insurance was represented in paid-up policies. Saskatchewan farmers owed almost 4 million dollars on their policies, but had a gross cash equity of almost 23 million dollars, leaving a net asset of about 18.7 million dollars in cash values of life insurance for that period.

Kinds of Insurance

Different types of life insurance policies meet the requirements and preferences of different individuals. In order to give an indication of the relative popularity of the various types of insurance, the first and (where applicable) second policies acquired by the farm operators in this sample were analysed with respect to type. The operators' first and second policies are shown separately in this regard in order to indicate possible differences in choice of type as between first and further policies. The data for the first two policies are then combined to give an average figure for the relative popularity of each type for all the policies analysed in detail. The major types of insurance policies in this classification are those previously described. Other minor policy types, such as fraternal protection, term insurance and sickness and accident insurance are classified together as "other" types.

TABLE VI. — TYPE OF FIRST POLICY

Type	No.	Per Cent
Ordinary Life.....	389	15.1
20 Pay Life.....	1,469	57.1
Other Pay Life.....	26	1.0
20 Year Endowment.....	185	7.2
Other Endowment.....	75	2.9
Club.....	283	11.0
Other.....	86	3.3
No Information.....	59	2.4
Total.....	2,572	100.0

TABLE VII. — TYPE OF SECOND POLICY

Type	No.	Per Cent
Ordinary Life.....	135	17.2
20 Pay Life.....	409	52.0
Other Pay Life.....	11	1.4
20 Year Endowment.....	51	6.5
Other Endowment.....	22	2.8
Club.....	136	17.3
Other.....	22	2.8
No Information.....	—	—
Total.....	786	100.0

It will be noted that the 20 Pay Life policy is the most popular type of life insurance among this group of farmers. There are two main reasons why this should be so. In the first place, the feature of a limited period of premium payments would be attractive to those who feel uncertain of their ability to keep up payments in the later years of their lives. In the second place, the relatively high cash values provide for a substantial recovery of payments in the event of a reduction in farm income that necessitated the discontinuance of premium payments.

Ordinary Life Policies, which usually form the basis of a permanent program of life insurance protection, were relatively unimportant as compared with the 20 Pay type. In terms of numbers of policies, the 20 Pay type outsold the Ordinary Life policy by almost four to one.

The Club type of insurance policy, commonly characterized by low premiums or assessments, is also relatively unimportant as compared with Twenty-pay Life policies, and is held in somewhat fewer numbers than Ordinary Life policies. Nevertheless, this type of insurance appears to have enjoyed increasing popularity in the later years of the survey period. This upswing in Club insurance in that period is no doubt associated with the severe yield and price depression experienced by these farm operators in the middle thirties. The low incomes were barely sufficient in many cases to provide the essentials of subsistence, and a great many life insurance policies in this period, after exhausting all non-forfeiture provisions, were allowed to lapse. In the later thirties, therefore, many farmers who wished to provide some protection for their families but could not afford the higher outlay for orthodox insurance, took advantage of the lower costs of Club insurance as the only available means of achieving this purpose.

The situation of advancing age, which created difficulties for so many assessment clubs in the past, has not been avoided by many of these clubs operating in Saskatchewan at the present time. The data for this study indicate that the average age of farmers holding Club insurance in this province is about fifty years. At the beginning of 1945, five of these Saskatchewan clubs, with a membership of 16,308, had 6,801 members, or 41.7 per cent, over fifty years of age. For individual clubs in this group, this percentage over fifty years ranged from 11.12 per cent to 75.86 per cent.¹ As this advanced age distribution becomes reflected in higher rates of mortality, the increased assessments upon the surviving members tend towards lapses in memberships and difficulties or eventual failure for the association.

1. Young, J. A., Superintendent of Insurance for Saskatchewan. Private Correspondence.

TABLE VIII. — TYPE OF FIRST AND SECOND POLICIES

	First Policy	Second Policy	Total	Per Cent
Ordinary Life.....	389	135	524	15.6
20 Pay Life.....	1,469	409	1,878	55.9
Other Pay Life.....	26	11	37	1.1
20 Year Endowment.....	185	51	236	7.0
Other Endowment.....	75	22	97	2.9
Club.....	283	136	419	12.5
Other.....	86	22	108	3.2
No Information.....	59	—	59	1.8
Total.....	2,572	786	3,358	100.0

The other types of insurance policies noted, including endowments, other limited payment lives and miscellaneous types, are of only minor significance individually, and together account for less than 15 per cent of all policies.

The numbers of policies of each type do not necessarily indicate the relative importance of that type of insurance. Differences in policy size would tend to modify the relationships shown above. As the following table indicates, however, there is little appreciable difference between the average sizes of policies of the major types of orthodox insurance. Club and 'other' policies are typically smaller, however, indicating a smaller relative importance of these types than a comparison of numbers of policies would indicate.

TABLE IX. — AVERAGE SIZE OF FIRST POLICY ACCORDING TO TYPE OF POLICY

Type of Policy	Average Amount
Ordinary Life.....	\$ 2,255
20 Pay Life.....	2,109
Other Pay Life.....	2,500
20 Year Endowment.....	2,239
Other Endowment.....	2,459
Club.....	1,361
Other.....	1,054
No Information.....	1,182

Disposition of Insurance

With regard to the policies which have been discontinued, it is notable that certain types of policies were retained in greater proportion than other types. An indication of the relative stability of the several types of policies is given in tables XI and XII. The details of the first and second policies are given separately to show up possible differences in disposition as between first and later life insurance policies. A summary of the relative popularity and stability of the various policy types is given in table XII.

TABLE XII. — SUMMARY OF RELATIVE POPULARITY AND STABILITY OF THE MAIN TYPES OF LIFE INSURANCE

Type of Policy	Percentage of Total	Percentage in Force	Percentage Cashed	Percentage Lapsed
Ordinary Life.....	15.6	61.8	4.6	33.6
20 Pay Life.....	55.9	54.2	10.7	35.1
Other Pay Life.....	1.1	59.4	21.6	19.0
20 Year Endowment.....	7.0	44.9	14.0	41.1
Other Endowment.....	2.9	72.2	4.1	23.7
Club.....	12.5	92.1	—	7.9
Other.....	3.2	66.7	1.8	31.5
No Information.....	1.8	4.8	12.9	82.3
	100.0			

It will be noted that while the 20 Pay Life was the most popular type of insurance policy, it was also one of the least stable, with only about 55 per cent of the policies issued being still in force at survey date. In this respect, only one other type, the 20 Year Endowment, had a higher proportion of lapses, with only about 45 per cent of policies still in force. On the other hand, the club type of policy is notable in its degree of stability, having over 92 per cent of policies issued still in force at survey date. The only orthodox policy type with a proportion of lapse below 20 per cent was the Other Pay Life policy. These form an insignificant part of the total policies, and are of such a specialized type as to be ordinarily limited to cases in which their characteristics are particularly adaptable. For the other major orthodox types there is little appreciable difference in lapse rate, and the data furthermore do not indicate differences between policy types in the length of time during which lapsed policies had been retained in force.

For the sample of operators as a whole, the relatively high proportion of lapses of most types of policies is probably associated with two major factors:

1. The severe depression in yields and prices experienced by the farm economy during the decade 1930-40.
2. The inflexibility of premium payments in relation to the normally fluctuating situation of farm income.

RELATION OF FARM ORGANIZATION AND MANAGEMENT TO LIFE INSURANCE PRACTICES OF OPERATOR

For any person, the usefulness of any of the features of the modern life insurance policy depends upon his individual situation. There are two separate aspects of the situation of farm operators which directly influence the requirements for life insurance of this group. One of these aspects relates to the business position of the farm unit. Differences within the farm set-up reflect both differences in

the need for insurance and in the ability to pay for it. At the same time, the personal situation of the operator, particularly his family status, is directly related to his need for life insurance. Other considerations being equal, the number of dependents, together with their ages, determine the family requirements in the event of the death of the breadwinner and so determine for the individual operator the amount of life insurance he needs to make for this provision.

Of the farm business factors affecting the life insurance practices of the operator, the most important appear to be tenure status, type of farm and the size of the farm unit. Other factors for which data are available include the predominant land class and productivity indices for the soil, taken as a measure of the quality of the land. The relation between each of these factors and the insurance practices of the farm operators of the sample group as a whole is indicated in the following sections.

Tenure

Over one half of the farmers represented in this study are listed as owning all the land they operate. This does not imply freedom from indebtedness on their total holdings, but rather distinguishes this group from those other operators who rent all or part of their holdings. The distribution of owners, part-owners and tenants affords an indication of the tenure progress of the larger group from which the sample was drawn.

The tenure progress of farmers ordinarily follows a fairly definite pattern. The young man just beginning to farm usually does not have the capital required to purchase outright both equipment and land. In these circumstances he would begin farming on rented land if possible, or purchase a small parcel and bring his unit to an economic size by renting additional land. He is thus enabled to accumulate a fund of capital which may in time permit the purchase of the land required for an economic unit. One would expect to note, therefore, that progress in tenure from renter to owner is associated with the number of years spent on the farm and thus with the age of the operator. The following table indicates, for the sample under consideration, the numbers of operators in the different tenure groups, together with their ages and length of time they had spent on the farm, as of the survey date.

TABLE XIII. — TENURE CHARACTERISTICS OF 2,572 FARM OPERATORS

	No.	Per Cent	Av. Age of Operator	No. of Years on Farm
Owners.....	1,464	56.9	49.3	23.2
Part Owners.....	699	27.2	47.7	22.0
Tenants.....	397	15.4	42.3	14.8
No Information.....	12	.5	47.8	18.8
Total.....	2,572	100.0		

The above distribution of tenure groups for this sample may be compared with the tenure distribution for the province of Saskatchewan as indicated by the eighth census of Canada, 1941. The census data are given in the following table.

TABLE XIV. — TENURE CHARACTERISTICS OF SASKATCHEWAN FARMERS
8TH CENSUS DATA, DOMINION BUREAU OF STATISTICS, 1941 (REVISED)

Tenure	No.	Per Cent
Owners.....	72,954	52.6
Part Owners.....	31,028	22.4
Tenants.....	34,093	24.6
Managers.....	638	0.4
Total.....	138,713	100.0

It will be noted that the sample varies from the census data in the proportion of tenants. The sample underestimates the number of tenants by about one half, relative to the proportion indicated by the census.

The life insurance practices of the several tenure groups are examined in two independent aspects. In the first place, there are certain conditions associated with tenure situations that indicate different requirements for life insurance protection. In the second place, the tenure situation of the operator is often related to his ability to purchase life insurance and to make promptly the regular annual payments required to keep his insurance in force.

One of the essential functions of life insurance is the creation of an estate at the death of the insured, which will make some provision for the security of his dependents after that event. It follows then that the usefulness of this function to any individual will diminish as he accumulates an estate in terms of other types of assets. As between tenants and owners of land, therefore, it is evident that, in general, the estates of owners will be greater than those of tenant farmers by the value of land involved. The dependents of land owners may ordinarily expect to inherit a land estate, and tenant farmers would find life insurance a desirable means of making a comparable provision for their own dependents. The same principle would apply, in degree, to operators owning more or less of the land which they operate in combination with rented land.

It is more difficult to make generalizations relating the tenure situation of a farm operator to his ability to purchase and retain life insurance. On the one hand, the tenant must give up a portion of his gross income each year to the landlord in payment for the use of his land. The tenant would seem then to be at a disadvantage, other factors being equal, in the amount of income ordinarily at his disposal. On the other hand, most owners acquire their land under term purchase agreements rather than by outright cash purchase. These operators, too, may have fixed annual payments to make in respect of land, although on purchase rather than on rental account.

In consideration of the requirement for prompt and regular payment of life insurance premiums, however, two factors suggest a balance of paying ability in favor of the owners as a group. In the first place, the owner category will include a number of operators with full equities in their holdings and who, therefore, make no annual diversions of income on this account. Furthermore, even in the cases of part owners, some of their incomes must be imputed to their capital, including land, while tenants as a group will derive no income from this source. On the average, then, tenants as a group would be expected to purchase and retain somewhat smaller amounts of life insurance than the other tenure groups, while owners as a group could purchase and retain more. These data for the sample of Saskatchewan farm operators are presented in the following table.

TABLE XV. — PURCHASES AND STATUS OF LIFE INSURANCE FOR THE MAIN TENURE GROUPS

Tenure	Average Amount Contracted	Average Amount in Force	Per Cent in Force	Average Cash Surrender Value Per Operator
	\$	\$		\$
Owners.....	3,070	1,817	59.2	476
Part Owners.....	2,775	1,652	59.5	417
Tenants.....	2,426	1,357	57.6	215
No Information.....	1,708	708	41.5	207

The above table indicates that owners, on the average, contracted and retained larger amounts of life insurance than did other tenure groups. In this connection, however, tenure progress is associated with age of operator, which may itself be associated with insurance practices. At the same time, the proportion of insurance contracted, which was still in force at survey date, was fairly similar for all groups, indicating a comparable situation of retention and lapse for each group, and suggesting that differences in purchases are the significant factor. It will be noted that the differences in purchases between tenure groups do not correspond to the differences in the need for insurance as between these groups.

The cash surrender value of insurance held reflects both the predominant type of policy and the period of time that the insurance has been in force. For the entire sample, the cash value of insurance held averaged about 24.7 per cent of the face value of insurance held. The owner and part owner groups conform fairly closely to this ratio. The tenants as a group, however, held cash values amounting to only about 15 per cent of insurance in force, indicating tendencies towards types of insurance with low or no cash values, and reflecting, at the same time, a shorter period of time during which their insurance had been in force. In order to indicate more clearly the separate effects upon insurance status of both policy type and period during which the insurance has been in force, the first insurance policy contracted by each operator had been examined in some detail.

The following table indicates, for the respective groups, the average size of the first policy taken, the length of time it had been in force at survey date, and the average age of operator when taken.

TABLE XVI. — STATUS OF FIRST INSURANCE POLICY FOR MAIN TENURE GROUPS

Tenure	Av. Amount of First Policy	Av. No. of Yrs. in Force	Av. Age of Operator When Taken
	\$		
Owners.....	2,121	10.4	24.8
Part Owners.....	1,887	10.1	25.3
Tenants.....	1,868	8.0	21.5
No Information.....	1,500	8.3	27.2

These data, in general, bear out the relationships between tenure and insurance practices which have been previously noted. However, the larger purchases of owners and part owners are associated with somewhat higher ages of those groups as compared with tenants. At the same time, the longer periods during which owners and part owners have had insurance in force would reflect the difference in cash values which has previously been referred to. In the above data, there is no indication of the average length of life of the first insurance policy. The times involved include both the periods in force of lapsed policies and the periods between date contracted and survey date for other policies.

The differences in life insurance experience as between tenure groups might in part reflect differences between types of policies which were preferred by the respective groups. With respect to the first policy contracted by the 2,572 operators in the sample, the following table indicates the relative popularity of the various policy types for the main tenure groups.

TABLE XVII. — PERCENTAGE OF EACH TYPE OF INSURANCE POLICY REPRESENTED IN THE FIRST PURCHASES OF THE MAIN TENURE GROUPS

Tenure	Ordinary Life	20 Pay Life	Other Pay Life	20 Yr. Endowment	Other Endowment	Club	Other	No Information
	%	%	%	%	%	%	%	%
Owners.....	16.7	56.9	1.0	7.7	2.9	9.1	3.3	2.4
Part Owners.....	13.0	56.1	1.0	6.3	3.4	14.7	3.3	2.1
Tenants.....	13.3	59.4	1.0	6.5	2.3	11.1	3.5	2.8
No Information.....	8.3	66.6	—	16.6	—	—	8.3	—

In general, the major differences in types of policy held appear to show up in differences in preferences for ordinary life and 20 payment life policies as between the tenure groups. There is a notable preference for the 20 pay life policies among tenants as compared with part owners and owners, and at the same time a distinct preference for the ordinary life type of policy on the part of the owners as a group.

TABLE XVIII. — PERCENTAGE OF EACH TYPE OF INSURANCE POLICY REPRESENTED IN THE SECOND PURCHASES OF THE MAIN TENURE GROUPS

Tenure	Ordinary Life	20 Pay Life	Club	All Other Types
	%	%	%	%
Owners.....	17.2	51.8	14.0	17.0
Part Owners.....	16.6	49.0	18.7	15.7
Tenants.....	15.1	45.3	22.6	17.0

In the second purchases, however, there is a tendency of all groups, but particularly tenants and part owners, in favour of club insurance policies. The lower premiums of this type of insurance would appeal to these groups, and the fact that these policies contain no cash values would help explain the low cash values held by the average tenant as noted previously.

Certain explanations of this pattern of preferences may be advanced. In the first place, it has been noted that tenure progress is associated with advancing age of operator. For the owners as a group, then, the premiums on all types of insurance would be relatively higher than for the other tenure groups. In the case of the limited payment policies, this increase in premium may have been sufficient to divert substantial purchases among owners into the lower premium type of policy. Among tenants and part owners, the lower age distribution may correspond with premiums low enough to permit consideration of the limited payment and high cash value features of 20 payment policies.

In addition, the 20 pay life policy combines a substantial element of saving with the insurance protection offered. Operators who are not making savings in the form of acquisitions of land may find this type of policy a desirable alternative. Tenants and part owners, therefore, would make more extensive use of this type of policy than would owners of land as a group.

The feature of premium payments for a limited period may provide an additional attraction for tenants to the 20 pay life policies. There is an uncertainty in tenancy that would lead a tenant farmer to be conservative in contracting for payments that will have to be made in the later years of his life. The owner of land, on the other hand, may feel reasonably secure for his later years and, therefore, feel less hesitant about contracting the payments of ordinary life insurance premiums for the indefinite period of his whole lifetime.

There is an apparent contradiction in this pattern of purchases, however. Tenants, as a group, require more insurance than do owners. In view of the premium differential, such protection could be acquired more cheaply, or more could be obtained for a given outlay, using ordinary life rather than limited payment life policies. Given the long-time view, however, the actual cost of the insurance protection involved may be less in the higher premium than in the lower premium policies. This consideration, together with the more immediate considerations discussed above, appears to establish the rationality of preferences for particular types of policies as between the main tenure groups. Thus, while the amounts of insurance purchased do not reflect differences in need between tenure groups, the types of policies preferred by these groups are those which provide the features most appropriate to their needs.

The life insurance experience of the respective tenure groups may be summarized very briefly. To begin with, tenants, as a group, have a greater need for life insurance than do owners and part owners, other factors being equal. In practice, however, owners have purchased more insurance than part owners, and tenants on the average have purchased less than either of the other groups.

All three groups have retained about the same proportion of their original insurance purchases, resulting in the situation of owners having more insurance in force at survey date than had the other groups, and tenants having less than owners and part owners. This situation is indicative of a somewhat greater ability on the part of owners to meet the payments required by life insurance. This factor is emphasized by the higher cash values of insurance held by owners,

who at the same time held a somewhat lower proportion of types with large cash reserves than did tenants and part owners. In general, the three groups have preferred the type of insurance policy most appropriate to their tenure situation.

Type of Farm

Certain attributes of the farm business which are associated with general farm type appear to be related to the insurance practices of the operator. Returns from agricultural production are characteristically unstable. This instability is derived from fluctuations in the yields of farm products and in the prices which the producer receives for them when sold. Crop farmers, with their reliance upon a single enterprise which is particularly subject to extreme fluctuations in yield and price, receive an annual income which is correspondingly variable.

Livestock producers ordinarily depend upon a single enterprise for their main income. Unlike crop production, however, the physical yield of animal products is more or less assured. The fluctuations in returns to livestock production are more usually associated with fluctuations in prices alone, and these returns are, therefore, less variable than the returns to crop production where both yields and prices are ordinarily highly variable.

Mixed farming, on the other hand, is defined in terms of a combination of enterprises, each contributing to the income of the operator. The effects of fluctuations in yields or price of any one of the products produced will have corresponding effects upon the farm income, but these effects are reduced in comparison with the effects upon income received by operators producing that one product exclusively. The result of this diversification of the risks of yield and price changes is thus to introduce elements of stability into the returns from mixed farming.

The aspect of the variability of returns associated with general farm type appears to be of significance to the insurance practices of the operator. Given comparable long-time rates of return as between the major farm types, it would appear that there would still be differences between types in the ability to meet fixed annual payments. With regard to life insurance, the mixed farmer should be in a relatively favourable position to make his premium payments and retain his policies through periods of lowered yields and price. Livestock and crop farmers, on the other hand, receive greatly reduced incomes in periods of adverse circumstances. During these periods, the prompt payment of insurance premiums may become a serious burden upon the cash resources of the operator. Since the need for life insurance is not of the same order as the more immediate needs of family living, it is probable that in these periods many life insurance policies fall into arrears. Some thereby lapse automatically. Longer periods of arrears associated with low income result in the eventual lapse of additional numbers of policies.

The following table indicates the experience of the operators of various farm types in Saskatchewan with regard to the stability of their life insurance purchases. The total purchases of the operators of each type as a group is shown together with the total amount of insurance still in force at the date of the survey. The percentage of insurance in force to insurance purchased is taken as a measure of the ability of the particular farm type to provide for payment of insurance premiums with the promptness and regularity required.

TABLE XIX. — PERCENTAGE OF LIFE INSURANCE PURCHASES REMAINING IN FORCE AT SURVEY DATE FOR THE MAJOR FARM TYPES

Farm Type	Amount of Insurance		Per Cent in Force
	Purchased	In Force, Survey Date	
	\$000	\$000	
Crop farm.....	4,389.9	2,425.9	55.3
Livestock farm.....	760.6	456.3	60.0
Mixed Farm.....	2,201.7	1,446.1	65.7
Subsistence.....	16.5	5.5	33.3
Part-time.....	29.4	5.9	20.1
Unclassified.....	29.0	26.0	89.6

These data indicate that crop farmers as a group permitted almost half of their total purchases of life insurance to lapse. The proportion retained at survey date amounted to 55 per cent of their total purchases. Livestock farmers had at the same time retained 60 per cent of their total purchases, while the operators of mixed farms had retained over 65 per cent of their life insurance purchases. In view of the number of operators comprising the sample, these differences in stability of insurance as between farm types appear to be highly significant.

The stability of life insurance as related to farm type is quite apart from the insurance buying practices of the operators of particular types of farms as a group. These buying practices would also appear to be related to certain characteristics associated with farm type. With regard to the relatively high variability of returns to field crop producers, it is quite probable that most of the life insurance purchased by this group would be obtained in periods of high income rather than in periods of low income. To the extent that this situation prevailed, the amount of life insurance contracted may be excessive in terms of what is the long-run average ability to pay for it. Livestock and mixed farmers, on the other hand, accustomed to a less variable income, would ordinarily be more accurate in estimating their ability to meet life insurance premiums.

The insurance purchasing practices of any group of farm operators, together with their relative abilities to meet the payments required to keep the insurance in force, are both quite apart again from the basic needs for life insurance of the particular group in question. Particular requirements for life insurance protection are difficult to evaluate. While the purchases and lapses of life insurance by farm operators may be associated with the type of farm which they operate, certain characteristics of farm type at the same time indicate what might be desirable features of the insurance program of the respective operator. Other considerations being equal, it would appear that the greatest hardship resulting from death of the operator would fall upon the family on the crop farm. The family of a mixed farmer inherits a going concern which ordinarily provides a flow of income the year around. The same might apply to the livestock farm, a combination beef with fluid milk, or a specialized dairy farm. The seasonal nature of crop production however, might, with the requirements of testamentary procedure and expenses, place the family concerned in financial difficulties while awaiting returns from future crops. In addition, the capital equipment on mixed and livestock farms, consisting substantially of livestock, is less likely to be encumbered by debts. The high proportion of land in the capital structure of the

crop farm may lead to the situation of a proportionately small land debt requiring the liquidation of remaining capital in the settlement of a crop farmer's estate.

The following table presents the data for Saskatchewan farm operators with respect to their individual purchases and lapses of life insurance. The average amount contracted per operator for each of the major farm types is shown, together with the average amount remaining in force at survey date.

TABLE XX. — AVERAGE TOTAL PURCHASES AND RETENTIONS OF LIFE INSURANCE FOR OPERATORS OF MAJOR FARM TYPES, SASKATCHEWAN

Farm Type	Average Amount of Insurance		Per Cent in Force
	Contracted	In Force	
	\$	\$	
Crop.....	3,281	1,813	55.2
Livestock.....	2,399	1,439	60.0
Mixed.....	2,477	1,627	65.7
Subsistence.....	1,375	458	33.3
Part-time.....	2,673	536	20.0
Unclassified.....	5,800	5,200	90.0

These data indicate that for the sample of Saskatchewan farms represented, the operators of crop farms purchased on the average substantially more life insurance than operators of livestock or mixed farms. The amounts purchased by these latter two groups were not significantly different, at about \$2,400 to \$2,475 per operator, respectively. Crop farmers, on the other hand, with an average total purchase of almost \$3,300 each, contracted a third more life insurance than livestock and mixed farmers as groups.

The average values of insurance retained by operators of the major types of farms are more difficult to interpret. There appears to be a successive differential of about \$200 between groups with livestock farmers holding about \$1,400 worth, mixed farmers about \$1,600 and crop farmers holding an average of about \$1,800 worth of life insurance. These differences may or may not reflect differences in the need for insurance as between farm types; or they may, in the case of crop farmers, indicate a special effort associated with a reluctance to discontinue or reduce even larger purchases of life insurance once they have been contracted.

There appear to be some differences in preference for particular types of policies as between the operators of the major farm types. For each of these groups of farmers, the 20 Pay life is by far the most popular policy. This type is somewhat less popular, however, with livestock and mixed farmers than with crop farmers. Ordinary life policies were purchased in smaller numbers relatively by the livestock farmers than by the other groups. For the livestock producers this reduced interest in the two main policy types was offset by relatively high purchases of club insurance policies. The reduced importance of Ordinary life and Twenty Pay life policies for livestock farmers shows up in both the first and second policies contracted by this group. The emphasis on club insurance shows up mainly in the first policy, while the second policies, being contracted later, on the average, reflect an increasing popularity of club insurance for all groups.

The data with respect to the relative popularity of different types of insurance for the operators in the main type-of-farming groups are shown in the following tables.

TABLE XXI. — RELATIVE POPULARITY OF EACH TYPE OF POLICY FOR OPERATORS OF THE MAIN TYPE-OF-FARMING GROUPS — OPERATORS' FIRST POLICY

Type of Farm	No.	Type of Policy							
		Ordinary Life	20 Pay Life	Other Pay Life	20 Yr. Endowment	Other Endowment	Club	Other	No Information
Crop.....	1,338	% 15.5	% 60.0	% 1.0	% 7.1	% 2.8	% 8.6	% 3.1	% 1.9
Livestock.....	317	11.4	52.4	.3	7.9	3.5	17.0	3.8	3.8
Mixed.....	889	15.0	54.9	1.2	6.6	2.9	12.0	3.5	2.8

TABLE XXII. — RELATIVE POPULARITY OF EACH TYPE OF POLICY FOR OPERATORS OF THE MAIN TYPE-OF-FARMING GROUPS — OPERATORS' SECOND POLICY

Type of Farm	No.	Type of Policy						
		Ordinary Life	20 Pay Life	Other Pay Life	20 Yr. Endowment	Other Endowment	Club	Other
Crop.....	% 458	% 17.0	% 55.0	% 1.1	% 5.4	% 2.4	% 16.6	% 2.4
Livestock.....	74	12.2	46.6	4.1	14.9	.7	17.6	4.1
Mixed.....	249	18.9	47.8	1.2	6.0	4.0	18.9	3.2

In the general relationships of life insurance to farm type, it appears that crop farmers as a group would find insurance protection more useful than the operators of other types. In this connection, crop farmers have purchased more life insurance than other groups, and have also retained, on the average, more insurance in force. However, the proportion of original purchases that has been retained in force is less for crop farmers than for other groups, and highest for mixed farmers. This situation reflects the characteristics of returns to the major farm types, as these accommodate the nature of payments required to keep life insurance in force. Finally, while many factors associated with each farm type indicate the suitability of a particular type of policy, the operators within all types do not deviate far from the averages for the whole group in their preferences for the major policy type.

Size of Farm

The size of farm unit has long been recognized as a major factor in farm progress and financial success. Larger farms are generally more efficient users of productive factors, resulting in increased returns to the operator. Increased returns and larger holdings in land and other assets which characterize large farm units have particular implications for the life insurance requirements of the

operators concerned. In the first place, the operators of large farms have less need for insurance, other considerations being equal, than have the operators of smaller farms. The difference in insurance need reflects directly the difference in real and other assets that the respective estates would contribute to dependents. On the other hand, the larger farmers, notwithstanding their smaller need, would ordinarily have the financial resources necessary for the purchase and retention of a larger program of insurance.

In relating size of farm business to life insurance practices in this study, the acres of cropland is taken as a measure of the size of farm. For crop farms, and to a large degree for mixed farms, this factor is an adequate indication of size. For livestock farms as such, however, acres of cropland may not be a consistent indication of size of business, and furthermore comparisons between livestock and other types of farms on the basis of cultivated acreage might not result in distinctions between different sizes of businesses in the comparable sense. For that reason, too much emphasis cannot be attached to comparisons between farms on the basis of cultivated acreage because of the other factors that are submerged in that comparison. Nevertheless, size of farm in physical terms has always represented a convenient basis of classification for examining the farm business, and considering the relatively small proportion of specialized livestock farmers and the possibility of compensating factors within that group, it seems desirable to retain the classification here.

The following table indicates, for the sample of farm operators as a whole, the general aspects of life insurance practice as these relate to farm size.

TABLE XXIII. — PURCHASES AND STATUS OF LIFE INSURANCE ACCORDING TO SIZE OF FARM

Acres of Cropland	Average Amount of Insurance		Per Cent in Force	Average Cash Surrender Value
	Contracted	In Force		
	\$	\$		\$
Under 100.....	1,763	464	26.3	83.33
100-199.....	1,941	969	49.9	95.64
200-299.....	2,416	1,309	54.2	319.07
300-399.....	2,690	1,645	61.1	373.62
400-499.....	2,930	1,970	67.2	448.00
500-599.....	2,930	1,540	52.6	345.07
600-699.....	4,276	2,765	64.7	724.85
700-799.....	4,263	2,618	61.4	816.79
800-899.....	4,681	3,283	70.1	954.75
900-999.....	4,586	2,784	60.7	570.70
Over 1,000.....	5,970	3,980	66.7	1,198.41

It will be noted, as a general relationship, that purchases and retentions of life insurance both increase with size of farm. However, this relationship is not consistent throughout the range of sizes. For example, operators with 400-499 cultivated acres retained more insurance and had higher cash equities in their insurance, than had those operators with 500-599 cultivated acres, although each group originally purchased the same amount. In this connection, it must be borne in mind that the number of cultivated acres as a measure of size of farm neglects other factors which relate to the scale of the farm business. For example, a mixed or livestock farmer with 400-499 acres under cultivation may have a larger business, in terms of output and income, than has a crop farmer with 500-599 acres under cultivation.

With regard to the need for insurance as it relates to size of farm, it appears that the small operators with the greater need have purchased relatively less than operators with larger holdings and less need. On the other hand, purchases and retentions are directly and closely proportional to the income position of the operator.

Land Class

Some of the main relationships indicated as between predominant land class and life insurance practices of Saskatchewan farm operators are brought out in the following discussion.

The land classification work being done by the Economics Division in this province covers several of the areas included in the present Life Insurance study. This classification rates individual quarter sections on the basis of productivity of wheat. These ratings range from Land Class V, which is the best in the province, down to Land Class I, which is considered to be normally submarginal for wheat production. In the present study, data for land class are available for the 1946 Govenlock-Eastend-Maple Creek area, the 1935 Chaplin-Gravelbourg-Glentworth land utilization study area and the 1939 survey area in the Rural Municipality of Pittville, No. 169, all in southwest Saskatchewan. In central Saskatchewan the areas included were the Cory-Asquith-Langham area and the Blucher-Colonsay area. The Weyburn-Estevan area of the 1941 survey was also included. For purposes of this study, the land on a particular farm is classed according to the predominant land class among the operators' holdings.

For the individual operator, the economic classification of his land reflects its physical productivity and this to a very large degree determines his income. Any study of the relationships between land class and life insurance practices will, therefore, reflect relationships between insurance and the broad situation of income which ordinarily depends upon many additional factors. The joint relationship in which land class influences life insurance practices may lead to an exaggeration of the degree of this relationship when viewed by itself. Within these qualifications, however, some indications of the manner in which insurance practices relate to land class may be observed from the data.

Of the 2,572 operators with insurance experience included in the study, 1,339 were in areas covered by land classification surveys and therefore these data are available. The following table shows the distribution of these operators by the predominant land class of their farm land.

TABLE XXIV. — NUMBER OF OPERATORS IN EACH LAND CLASS

Land Class	No. of Operators	Percentage
I.....	172	12.4
II.....	287	21.6
III.....	543	40.7
IV.....	243	18.2
V.....	94	7.1
Total.....	1,339	100.0

In view of the differences in income and other situations as between operators on the respective land classes, variations in the life insurance purchases are to be expected between these groups of operators. Table XXV shows the average number of life insurance policies purchased by the operators on each land class, together with the average amounts of life insurance involved.

TABLE XXV. — PURCHASES OF LIFE INSURANCE BY THE OPERATORS ON EACH LAND CLASS

Land Class	Av. No. Policies Contracted	Av. Amount of Insurance Contracted
		\$
I.....	1.4	2,424
II.....	1.4	2,372
III.....	1.5	2,791
IV.....	1.6	3,734
V.....	1.6	3,328

Apart from differences in insurance purchases as between operators in the respective land classes, the operators concerned will differ in their abilities to make the prompt and periodic fixed payments required to keep their life insurance in force. Table XXVI shows the average disposition of the life insurance purchases of these groups of operators. The numbers of policies discontinued show an experience of lapse which may be taken as an absolute measure but more accurately with relation to the number of policies contracted. The amount of insurance in force as a percentage of that contracted is also shown for each group.

TABLE XXVI. — DISPOSITION OF LIFE INSURANCE PURCHASES BY LAND CLASS OF OPERATOR'S FARM

Land Class	Av. No. Policies Discontinued	Av. Amount of Insurance in Force	In Force as Per Cent of Contracted
		\$	
I.....	.6	1,041	42.9
II.....	.7	936	39.4
III.....	.7	1,207	43.2
IV.....	.7	1,639	43.9
V.....	.7	1,621	48.7

Another measure of the status of life insurance holdings is the cash value of the policies which the operators hold. This is a personal asset of the operator, in addition to the protection afforded. The cash value of the insurance at once reflects the permanence with which insurance has been retained and the type of policies most widely held. The following table indicates the average cash value of insurance held by the groups of operators on each land class.

TABLE XXVII. — CASH VALUE OF LIFE INSURANCE HELD BY OPERATORS ON EACH LAND CLASS

Land Class	Average Cash Surrender Value of Insurance
	\$
I.....	290
II.....	246
III.....	299
IV.....	397
V.....	479

In general, it appears that the operators on the higher grades of land, as indicated by land class, have purchased more life insurance, retained more of

it in force, and have larger cash equities in their insurance policies. The notable exception is Land Class I, which in this relationship appears to be inverted with Land Class II. This situation for Land Class I is probably associated with the organization typical of lower grade land, probably including more livestock rather than the other farm types with which it is compared here. There is also the probability of the free utilization of adjoining vacant or abandoned land graded submarginal for wheat production.

Soil Group

It is patent that the fertility and productivity of the soil is a major factor in determining the financial situation of the farm operator. The favourable income situation associated with the better grades of soil implies a greater ability to purchase and retain life insurance. At the same time, since the better land is more valuable, the estate that it represents implies a reduced need for the provisions of life insurance. The following table indicates the life insurance practices of operators on the varying grades of land, as these practices relate to the need for insurance and the ability to pay for it. Grade of land is measured by the productivity index, a rating calculated by the Soils Department of the University of Saskatchewan and based upon the suitability of the physical characteristics of the soil for grain production. In this classification soil group 1 represents the best quality of soil and group 0 the poorest.

TABLE XXVIII. — AMOUNTS AND STATUS OF LIFE INSURANCE OF OPERATORS ON THE VARYING GRADES OF LAND

Soil Group	Average amount of Insurance		Per Cent in Force	Av. Cash Value
	Contracted	in Force		
	\$	\$		\$
1.....	4,702	3,534	75.2	897
2.....	2,462	1,777	72.2	385
3.....	2,748	1,480	53.8	414
4.....	2,963	1,720	58.0	396
5.....	2,767	2,016	72.8	450
6.....	3,055	1,684	55.1	371
7.....	2,488	1,042	41.8	277
8.....	2,298	1,060	46.1	106
9.....	2,450	1,142	46.6	345
0.....	1,677	358	21.3	102
No Information.....	1,178	1,036	87.9	331

In general, the operators on the better grades of land purchased more life insurance, retained a greater proportion of it in force, and had higher cash equities in their insurance than did the operators on the poor grades of land. However, this relationship does not appear to be consistent throughout the range of soil grades. Differences are no doubt introduced here by the different types and sizes of farms that are associated with the different grades of land. It will be noted, however, that the pattern of purchases is more directly related to the ability to pay for insurance as this ability relates to soil productivity, rather than to need as it relates to soil.

Net Worth

The net worth of the farm operator represents the value of his assets less the value of his liabilities. It is thus the net equity of the operator in his holdings and comprises the value of the estate he would leave to his dependents in the

event of his decease, allowing for his debts but not for testamentary expenses. It will be seen then that in making provision for dependents, the larger a farmer's net worth the less his need for life insurance. Between groups of farmers having different net worths, the average need of each group should decrease as net worth increases. On the other hand, as net worth reflects larger incomes and financial resources, the ability of these groups to buy and retain insurance would increase as net worth increased. There is again the fundamental incompatibility of need and paying ability as determinants of the amount of insurance purchased. The following table indicates the insurance practices associated with net worth as these relate to the criteria of need and ability to pay.

TABLE XXIX. — AMOUNTS AND STATUS OF LIFE INSURANCE ACCORDING TO OPERATORS' NET WORTH

Net Worth (nearest \$1,000)	Average Amount of Insurance		Per Cent in Force	Av. Cash Value
	Purchased	In Force		
	\$	\$		\$
Negative Net Worth.....	2,295	1,046	45.5	170
1,000-5,000.....	2,152	1,280	59.5	248
6,000-10,000.....	2,614	1,690	64.6	363
11,000-15,000.....	2,784	2,166	77.8	554
16,000-20,000.....	3,357	2,782	82.9	836
21,000-29,000.....	4,782	3,647	76.3	961
30,000-39,000.....	5,867	5,827	99.3	1,696
Over 40,000.....	7,341	6,572	89.5	2,485

In general, the more the farmer in this sample was worth, the more insurance he bought. In addition, those with more assets retained a higher percentage of their original purchases in force and had a high cash equity in their holdings. This direct relationship of purchases to ability to pay is in inverse relation to the need for insurance in relation to net worth.

RELATION OF PERSONAL CHARACTERISTICS OF FARM OPERATOR TO LIFE INSURANCE PRACTICES

The need for the protective feature of life insurance is closely related to the personal status of the prospective buyer. Since the provision for dependents is the primary consideration, the number of dependents involved should be a main determinant of the amount of insurance required. Assuming that other determinants of need, such as other assets, would randomize out over a large group of farmers, then differences in numbers of dependents among farmers should reflect directly differences in the need for insurance. The age of the operator should also relate to insurance practice, in part as the insurance program is built up to care for the needs of an enlarging family and in line with the more favourable paying ability associated with financial progress over the years on the farm. Other factors, more difficult to evaluate and interpret, and which may influence insurance practices, are the education of the operator and his wife, and their social background and environments as these factors are related to the nationality and birthplace of the operator. The operator's insurance practices associated with each of these personal factors may now be examined in turn.

Number of Dependents

The number of dependents, including the operator's wife, as of the date of survey, may be taken as an indication of the need of the operator for insurance

at that date. His experience with insurance in the past, in terms of purchases and lapses, should also relate to his present family situation as it has developed. When farm operators are classified according to the number of dependents for whom their insurance must provide, there should be a direct relationship between the size of the insurance program and the number of dependents. The following table indicates the insurance practices of the farmers in this study in relation to the numbers of their dependents.

TABLE XXX.—AMOUNTS AND STATUS OF LIFE INSURANCE ACCORDING TO NUMBER OF DEPENDENTS

No. of Dependents	Average Amount of Insurance		Per Cent in Force	Av. Cash Value
	Contracted	In Force		
	\$	\$		\$
0.....	2,348	1,133	48.2	435
1.....	2,646	1,582	59.8	406
2.....	2,715	1,741	64.1	397
3.....	2,747	1,753	63.8	443
4.....	3,111	1,788	57.5	480
5.....	3,207	1,898	59.2	382
6.....	3,518	2,059	58.5	471
7.....	2,823	1,257	44.5	294
8.....	2,926	1,542	52.7	361
9 and Over.....	3,193	1,630	51.0	364
No Information.....	1,864	1,500	80.5	123

In general, for the farm operators in this group, the purchases of insurance increased a small amount as the number of dependents increased. The amount of insurance retained in force was also higher for operators with larger families. This relationship was not consistent, however, and it appears that as families enlarged the pressure of other expenditures may have operated to curtail the purchases of life insurance. On the average, however, the insurance practices of this group appear to have been fairly closely related to the size of their families. Inconsistencies here may relate to differences in need which are not reflected in family size, and here as elsewhere in the analysis only the general relationship is suggested.

Age of Operator

The relationship of the operator's age to his insurance practices is probably mostly indirect through the expanding needs of an enlarging family as this relates to age, and to an improving financial position as this relates to years of effort. There is, however, the additional factor, effective in many cases, of advancing ages not being associated with the accumulation of other assets, and there is, therefore, the increased need for insurance with advancing age and possibility of need of dependents. Offsetting this more direct effect is the decreasing need for insurance as dependents grow up and become self-sustaining, suggesting that at these advanced ages the amount of insurance to be carried could be reduced. The relationships between age of operator and insurance practices are shown in the following table.

TABLE XXXI. — AMOUNTS AND STATUS OF LIFE INSURANCE ACCORDING TO AGE OF OPERATOR

Age of Operator	Average Amount of Insurance		Per Cent in Force	Av. Cash Value
	Contracted	In Force		
	\$	\$		\$
20-29.....	2,020	1,653	81.8	310
30-39.....	2,407	1,487	61.8	226
40-49.....	2,931	1,660	56.6	391
50-59.....	3,350	1,956	58.4	540
60-69.....	2,762	1,536	55.6	490
70-79.....	2,236	1,242	55.6	636
No Information.....	2,480	1,635	65.9	75

It will be noted that operators in the age group 50-59 years had contracted more insurance on the average than had operators both above and below that age. This age group had also retained more insurance in force than those of both higher and lower ages. In general, both amounts purchased and amounts retained by farm operators increased up to the age 50-59 years, and declined as operator's age advanced above that figure. Cash values reflect the amounts in force, except for the higher ages where the length of time for which the policies had been in force would be a significant factor.

In general, the life insurance practices as they relate to the age of the operator conform well to the ordinary changes in need of different ages for different amounts of insurance.

Conjugal Status of Operator

When life insurance is held for the purpose of providing security for dependents in the event of untimely decease of the breadwinner, the needs of married men in this regard appear to be much greater than those of unmarried persons whose dependents include only an occasional parent or other close relative. On the other hand, when life insurance is held as a means of accumulating savings, it may be just as appropriate in this use for unmarried men as for those with wives and families. In still other cases, it may be good business for young men to acquire life insurance early in their working lives, and thus build up equities in their policies before family needs introduce additional demands upon their incomes.

In the case of farm operators, however, savings are ordinarily turned back into the farm business and accumulated in land or other forms of farm capital. The savings features of life insurance are thus not so important for a large proportion of farmers. On the basis of the need for protection then, married operators would be expected to contract and hold more life insurance than other groups with fewer or no dependents. The following tables indicate the purchases and status of life insurance for single farm operators, married operators and widowers represented in the sample of Saskatchewan farms.

TABLE XXXII. — DISTRIBUTION OF 2,572 SASKATCHEWAN FARM OPERATORS BY CONJUGAL STATUS

Conjugal State	No. of Operators	Per Cent
Single.....	257	10.0
Married.....	2,157	83.9
Widowed or Divorced.....	92	3.9
No Information.....	66	2.2
Total.....	2,572	100.0

TABLE XXXIII. — PURCHASES AND STATUS OF LIFE INSURANCE OF 2,572 SASKATCHEWAN FARM OPERATORS ACCORDING TO CONJUGAL STATE

Conjugal State	Amount of Insurance		Per Cent of Contracted in Force	Cash Surrender Value
	Contracted	In Force		
Single.....	\$ 2,347	\$ 1,326	56.5	\$ 400
Married.....	2,954	1,771	59.9	423
Widowed or Divorced.....	2,706	1,503	55.5	435
No Information.....	3,091	955	30.9	333

These data indicate that differences in purchases of life insurance for these groups conform fairly closely to the requirements for protection based upon the needs of probable dependents. Other factors influencing total purchases, such as paying ability and uses of life insurance for other purposes, and the effects of the age differences as between these groups have been subsumed in this relationship.

As regards lapses in life insurance, there does not appear to be any significant difference as between these marital groups. On the balance, married farmers have contracted more life insurance than the other groups and have retained somewhat more of it. The amount of cash value represented in the insurance held in force indicates a higher equity held by widowers and divorced operators than either single or married operators. Much of this difference, no doubt, reflects differences in ages and thus in the periods during which insurance has been in force as among these three groups of operators.

Education of Operator and Wife

Certain attributes of successful farming, such as a high net worth or high labour earnings, often appear to have no relation to the education of the operator.

When the education of the operator's wife is taken into consideration, however, there is found to be a fairly consistent and direct relationship between education and farm success and progress. In indicating possible relationships between insurance practices and education, therefore, the insurance experience of the operator is related to the simple weighted education of himself and his wife.

It would appear that education might in general influence insurance practices in two distinct aspects. In the first place, the principles of insurance are largely applications of mathematics, and thus the understanding of insurance principles is difficult for those without at least higher grade school or high school educations. Given an understanding of the principles involved, an educated person would be expected to adapt the use of insurance more closely to his needs than would a person without such knowledge.

In addition to estimating his life insurance requirements more accurately, the more educated farm operator may, in the relation of education to farm success, be better able to purchase insurance and to combine this paying ability with an accurate estimate of how much he can pay for, so as to retain more of his purchases in force.

For purposes of this study, the farmers represented have been classified into groups according to the simple average of the school grades attained by the operator and by his wife. The following table indicates the detail of this classification, together with the number of operators falling within each group.

TABLE XXXIV. — DISTRIBUTION OF 2,572 SASKATCHEWAN FARM OPERATORS ACCORDING TO EDUCATION OF OPERATOR AND HIS WIFE

Educational Group	No. of Operators	Percentage of Operators
Grades 1-4 incl.....	255	9.9
Grades 5-8 incl.....	1,620	63.0
Grades 9-10.....	441	17.1
Grades 11-12.....	93	3.6
Either Operator or Wife Having Some High School and Additional, Such as University, Normal, etc.....	51	2.0
No Information.....	112	4.4
Total.....	2,572	100.0

The insurance experience of these various educational groups, with respect to contractions, retentions and cash values of life insurance, is shown in the following table.

TABLE XXXV. — PURCHASES AND STATUS OF LIFE INSURANCE BY 2,572 SASKATCHEWAN FARM OPERATORS ACCORDING TO EDUCATION OF OPERATOR AND WIFE

Educational Group	Average Amount of Insurance		Per Cent of Purchased in Force	Av. Cash Surrender Value
	Purchased	In Force		
Grades 1-4 incl.....	\$ 3,286	\$ 1,700	51.7	\$ 418
Grades 5-8 incl.....	2,820	1,590	56.4	378
Grades 9-10.....	3,148	2,100	66.7	530
Grades 11-12.....	3,550	2,457	69.2	778
Either Operator or Wife Having Some High School and Additional, Such as University, Normal, etc.....	2,606	1,733	66.5	484
No Information.....	2,403	1,433	59.6	354

It will be noted that operators having lower educations contracted more life insurance on the average than those having completed elementary school or with some high school education. At the same time, the proportion that this group retained in force was less than the proportion retained by these other groups. In the case where the average education of the operator and his wife indicated at least three years of high school training, both the amount of insurance purchased and the proportion retained was higher than for all other educational groups.

The case in which operators or their wives had high school and further training does not follow this pattern of relationships. The smaller average amount of insurance contracted by this group may reflect the smaller requirements of younger people or a more conservative estimate of paying ability. The reduced proportion of insurance retained, however, suggests only indirect relationships between life insurance practices and education at this level.

SUMMARY

In a sample of Saskatchewan farms represented by 5,661 Farm Business records obtained between 1931 and 1946, 2,572 of the farm operators involved had made purchases of life insurance at one time or another. Of this number, 786 had two or more policies. The total number of all policies purchased by the group amounted to 3,686 policies, with a total face value of close to 7.5 million dollars. That is to say, about 45 per cent of the operators had contracted an average of about 1.5 policies of close to \$2,900 in face value.

Of the total amount contracted, a little over three million dollars worth was dropped by 1,061 operators. This discontinuance amounts to an average lapse of \$2,875 per operator, or an average of \$2,275 on each of the 1,344 policies involved.

Among this group of purchasers, the 20 pay life type of policy was the most popular type, accounting for about 56 per cent of all policies sold. Ordinary life policies accounted for about 15 per cent of the total, with club policies, more

popular in later years of the survey period, making up 12.5 per cent of the total. Twenty year and other endowment policies amounted to less than 10 per cent of the total.

Club life insurance policies, characterized mainly by comparatively low premiums, are the most stable of all policy types, with about 90 per cent of all the policies issued still in force at survey date. Certain forms of endowment policies were also notably stable, in comparison with ordinary life policies with 60 per cent of the policies still in force.

With regard to prepaid or matured limited-payment policies, about 10 per cent of the life insurance in force was paid up. The indebtedness on insurance in force amounted to an average encumbrance of \$70 per operator. The cash surrender value of insurance in force amounted to an average of \$400 per operator and represented a considerable proportion of the operator's net worth in many cases.

Life insurance policies with a face value of \$1,000 made up about 40 per cent of the total number of policies. Policies for \$1,000 and \$2,000 made up more than three quarters of the total number.

In the interpretations of these calculations, two characteristics of the sample must be kept in mind. In the first place, the data were collected over the long period between 1931 and 1945. Secondly, the distribution of the survey areas is taken as constituting a representativeness of the province as a whole. Each survey area thereby introduces both geographical and time variables into the data. Within the requirements of these factors, the statistics obtained from the sample studied here may be taken as an estimate of the life insurance practices of the province's farm group as a whole.

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